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17 CFR Part 38 RIN 3038-AF04  
Electronic Trading Risk Principles (“Principles”)<sup>1</sup>  
Notice of Proposed Rulemaking (“NPRM”)

Submitted electronically at <https://comments.cftc.gov>

Dear Mr. Kirkpatrick,

The Institute for Agriculture and Trade Policy (“IATP”)<sup>2</sup> appreciates the opportunity to comment on the above captioned NPRM. IATP last wrote to the Commission concerning electronic trading on May 1, 2017, regarding Regulation Automated Trading (“Reg AT”).<sup>3</sup>

## Overview

On June 25, the Commission voted by 3-to-2 to withdraw the proposed Reg AT and the 2017 Supplementary Notice (SN) to it.<sup>4</sup> IATP will not reiterate our 2016 comment on Reg AT.<sup>5</sup> We cite our 2017 letter on the SN only to state a first principle of any regulation: “Whatever the final content of Regulation AT, it must be enforceable.” This principle must apply to any principles-based regulation. The Principles scarcely mention Reg AT except to call for its withdrawal and to reiterate industry complaints alleging that Reg AT requirements would be “too costly and burdensome” (e.g., FR 42772) for market participants and Designated Contract Markets (DCMs) to implement.

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<sup>1</sup> <https://www.cftc.gov/sites/default/files/2020/07/2020-14381a.pdf>

<sup>2</sup> IATP is a nonprofit, 501(c)(3) nongovernmental organization, headquartered in Minneapolis, Minnesota, with offices in Washington, D.C. and Berlin, Germany. IATP has participated in the Commodity Markets Oversight Coalition (CMOC) from 2009 to 2015 2009, and the Derivatives Task Force of Americans for Financial Reform since 2010.

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<https://comments.cftc.gov/PublicComments/ViewComment.aspx?id=61191&SearchText=Institute%20for%20Agriculture%20and%20Trade%20Policy>

<sup>4</sup> <https://www.cftc.gov/PressRoom/PressReleases/8188-20>

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<https://comments.cftc.gov/PublicComments/ViewComment.aspx?id=60769&SearchText=Institute%20for%20Agriculture%20and%20Trade%20Policy>

In our view, the salient features of the NPRM are: 1) few proposed definitions in the preamble and three proposed Principles; 2) a retreat from the Reg AT's proposed regulation of market participants transacting with automated trading systems on DCM platforms; 3) the delegation of most CFTC authority to the DCMs to regulate market participants; 4) the lack of any standardization concerning the risk controls each DCM must design and deploy to prevent, detect and mitigate market disruptions; 5) no requirement in the Principles for post-trade risk controls to determine if a market disruption has resulted in one or a cascade of credit events; 6) the lack of any provision presented in the preamble to enable the Commission to verify DCM compliance with the implementation of the Principles save after the fact of a market disruption, when the DCM is required to provide the Commission with information about the causes and measures to mitigate a market disruption that the DCM determines to be "significant." (Risk Principle 3)

We will address these features, though not in this order. We will analyze the preambular explanation of the Principles, as well as the Principles themselves, and make a few recommendations to improve the regulation of automated trading. IATP appreciates the work of the DCMs and market participants to establish and implement pre-trade and post-trade risk controls for their automated trading systems and electronic trading platforms. We likewise are grateful to the Technology Advisory Committee (TAC) and Commissioner Brian Quintenz and his staff for organizing the TAC workshops at which DCMs and market participants explained their risk control achievements. Without the work of TAC and the Commission staff, this comment letter couldn't have been written.

### IATP's interest in the Principles

IATP's interest in the NPRM is based first in the testimony of agricultural commodity traders at two CFTC Agricultural Futures Conferences.<sup>6</sup> They were among the commercial hedgers unable to access contracts to lay off price risks effectively, not just because they could not afford access to super-computers, but because of the automated trading order message "noise" that impeded price discovery and risk management. One commodity trader asked a question unanswered at the conferences: What does it matter that automated trading lowers transaction costs, if the trading technology of commercial hedgers is not fast enough to acquire positions to lay off risks?

The underlying assets' information in such contracts, e.g., in live cattle futures, was what two analysts of automated trading characterized as "inherent heterogeneity."<sup>7</sup> These analysts note that agricultural contracts have the greatest "inherent heterogeneity" of information among all derivatives contracts and the greatest resistance to information standardization for automated trading. The heterogeneous information resistance to standardization for algorithmic trading strategies was on full, if decorous,

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<sup>6</sup> Steve Suppan, "Regulating agricultural futures markets to benefit producers, processors and consumers," Institute for Agriculture and Trade Policy, May 9, 2019. <https://www.iatp.org/blog/201905/regulating-agricultural-futures-markets-benefit-producers-processors-and-consumers> and Suppan, "Managing low and volatile a price farmer anxiety? CFTC goes to the heartland," April 8, 2018. <https://www.iatp.org/blog/CFTC-goes-to-heartland>

<sup>7</sup> Antti Belt and Eric Boudier, "Hyperliquidity: A Gathering Storm for Commodity Traders," Boston Consulting Group, November 2016. <https://www.bcg.com/publications/2016/energy-environment-metals-mining-hyperliquidity> and Emiko Terozano, "Commodity investors embrace algorithmic trading," *Financial Times*, July 6, 2017. <https://www.ft.com/content/c386de76-61a2-11e7-8814-0ac7eb84e5f1>

display in a Goldman Sachs' 2019 note to investors about why it was dumping all its physical commodity derivatives trading recommendations.

As reported by the Financial Times, the Goldman note explained that the trading risks of physical commodities concerned "idiosyncratic" events whose heterogeneous information could not be standardized and incorporated into the algorithmic trading of Goldman's "momentum strategies." For example, Goldman said its algorithmic strategy could not have anticipated the 50% increase in the price of the lean hog futures contract because of the "idiosyncratic" impact of African Swine Fever in China on the underlying asset.<sup>8</sup> What is "idiosyncratic" for financial speculators is the normal state of underlying asset information that must be interpreted by commercial hedgers to manage price risks. Mining and oil exploration disasters; power distribution disruptions; agricultural animal and plant diseases; and climate change-related impacts on agricultural crop production and transportation — these are just some of the "idiosyncratic" events generating information that commercial hedgers must incorporate into their derivatives trading strategies.

These "idiosyncratic" events and their informational "inherent heterogeneity" will become more frequent, more severe and, under a tipping point projected by the International Panel on Climate Change (IPCC), radically destabilizing and irreversible as early as 2040.<sup>9</sup> Robert B. Litterman, chairman of the Market Risk Advisory Committee (MRAC) Subcommittee Report on climate-related financial risks, remarked of the IPCC report:

And now I think they [the IPPC scientists] realize that two degrees C [Celsius] is very much a danger zone. And, and frankly, if we don't price emissions in the next few years ... here's a scary thing, every three years the maximum temperature is going up by about a 10th of a degree, it just becomes too late. That's the cost of delay. And so, if we're today shooting for something like 1.7 or 1.8, we're less than 10 years away from crossing two.<sup>10</sup>

Under business as usual practices, the imminence of the climate crisis is near. Fortunately, much nearer is the imminence of the publication of the MRAC Subcommittee report and MRAC recommendations on actions the CFTC should undertake to enable market participants and DCMs to manage their climate-related financial risks. The preamble and the Principles will be greatly improved if they are informed by the MRAC recommendations and the Subcommittee's findings. The preamble attempts to distinguish these proposed Principles from current CFTC Core Principles and rules governing automated trading as "anticipatory in nature." (FR 42764) Yet nothing in the preamble anticipates the climate change-related market disruptions that the Commission, DCMs, market participants and other financial regulators will be challenged to manage.<sup>11</sup>

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<sup>8</sup> Phillip Georgiadis, "Goldman jettisons all its commodity recommendations," *Financial Times*, April 26, 2019. <https://www.ft.com/content/b4b31544-6804-11e9-9adc-98bf1d35a056>

<sup>9</sup> Coral Davenport, "Major Climate Report Describes Risk of Crisis as Early as 2040," *The New York Times*, October 7, 2018.

<sup>10</sup> Cited in "Pricing Climate Risk in the Market, with Robert B. Litterman," Resources Radio, Resources for the Future, January 7, 2020. <https://www.resourcsmag.org/resources-radio/pricing-climate-risk-markets-robert-litterman/>

<sup>11</sup> Louie Woodall, "Black boxes, green swans," Climate Risk Review, August 3, 2020.

It is nearly certain for the great majority of transactions in physical commodity derivatives contracts that automated trading systems, machine learning and the general digitalization of commodities trading is an “irreversible force.”<sup>12</sup> It does not follow that such a force will be optimized for the benefit of the public interest and market participants by allowing technological infrastructure innovations, very lightly subject to the Principles, to substitute for regulatory requirements.

Finally, the introduction to the NPRM should include a summary of the Commission’s pre-Dodd Frank policy and research on electronic trading. Electronic trading is a fundamental factor in the Commission’s decision in 2000 to approve the DCMs’ proposals to “demutualize” the DCMs, i.e., to convert them from public utilities with public interest obligations to for-profit entities with fiduciary obligations to shareholders. The DCMs desired to invest more in and profit more from innovations in electronic trading technology.<sup>13</sup> Staff senior economist Gary Kuserk presented the “CFTC Regulatory Reinvention Proposal” to the Agricultural Advisory Committee on July 19, 2000.<sup>14</sup> The proposal includes the demutualization and Core Principles framework.

Mr. Kuserk explained that the demutualization rule would result in three tiers of DCMs, the Recognized Futures and Options Exchanges (RFEs), Derivatives Trading Facilities (DTFs) and exempt Multilateral Trade Execution Facilities (MTEFs). He assured the AAC members that enumerated agricultural derivatives contracts would not be traded in the same tier as the financial commodity derivatives contracts: “If we look at the exempt MTEF [Multilateral Trading Execution Facility] level, in general, ag commodities would be excluded from being able to trade in this type of market. Specifically, the types of commodities that would trade in this type of market would be financial-type commodities, including such commodities as debt obligations, foreign currencies, interest rates, exempt securities, measures of credit quality, things like that.”<sup>15</sup> Mr. Kuserk said the rule would allow only large institutional traders on the DTFs and exempt MTEFs, so agricultural commodity traders would not compete directly with the weight of money (and the trading technology it can buy) of large institutional traders. Much of the “CFTC Regulatory Reinvention Proposal,” including the three tiers of DCMs, was excised from the final demutualization rule to enable physical derivatives contracts to be traded as exempt from regulation swaps.

We will not attempt to summarize here the results of the final rule that allowed agricultural commodity traders to “compete” with Morgan Stanley, Goldman Sachs, etc. However, IATP urges the Commission to reacquaint itself with the history of the demutualization rule. That history could inform an electronic trading rule calibrated to the needs of commercial hedgers managing price risks in the face of the “inherent heterogeneity” of information related to the “idiosyncratic” events impacting the value of the underlying assets of physical derivatives contracts.

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<sup>12</sup> Belt and Boudier, “Attack of the Algorithms: Value Chain Disruption in Commodity Trading,” Boston Consulting Group, January 2017. [https://image-src.bcg.com/Images/BCG-Attack-of-Algorithms-Jan-2017\\_tcm9-149056.pdf](https://image-src.bcg.com/Images/BCG-Attack-of-Algorithms-Jan-2017_tcm9-149056.pdf)

<sup>13</sup> Roberta Karmel, “Turning Seats into Shares: Causes and Implications of Demutualization of Stock and Futures Exchanges,” *Hastings Law Journal*, Vol. 53:2. 2002.

[https://repository.uchastings.edu/cgi/viewcontent.cgi?article=3467&context=hastings\\_law\\_journal](https://repository.uchastings.edu/cgi/viewcontent.cgi?article=3467&context=hastings_law_journal)

<sup>14</sup> Gary Kuserk, presentation to the Agriculture Advisory Committee, Commodity Futures Trading Commission, 28th Meeting, July 19, 2000.

[https://www.cftc.gov/About/CFTCCommittees/AgriculturalAdvisory/aac\\_07192000\\_transcript.html](https://www.cftc.gov/About/CFTCCommittees/AgriculturalAdvisory/aac_07192000_transcript.html)

<sup>15</sup> Ibid.

More generally, if the Commission refuses to learn from its history and act on what it learns, then it can only hope that faster and smarter trading technology will prevent, detect and mitigate the more frequent and larger scale market disruptions that climate change will bring. IATP doubts that the Principles can assist in managing such disruptions because they ask too much of automated risk controls and not nearly enough of regulatory intelligence. Fei-Fei Li, chief scientist at Google Cloud, said of artificial intelligence, “It is very task-focused, it lacks contextual awareness, and it lacks the kind of flexible learning that humans have.”<sup>16</sup> Risk controls are task focused, but they lack contextual awareness of whatever is not coded into their control program. The Principles are semantically flexible, but they lack the contextual awareness that comes from learning not just from market disruptions, but also from the Commission’s regulatory history with electronic trading and market disruptions.

*Recommendation 1: The Principles apply to asset classes, financial speculators and commercial hedgers indiscriminately. The Commission should issue a term sheet for the staff to report on how effectively commercial hedgers of physical derivatives contracts manage their price risks in the automated, nano-second trading environment. The term sheet should incorporate the findings of the MRAC Subcommittee Report on climate-related financial risks for physical derivatives contracts. Such a study should inform a revision of the preamble, Principles and future rulemaking on automated trading. The Commission should issue a term sheet for a study to investigate the feasibility of revising the demutualization rule to create tiers of DCMs for physical and financial derivatives contracts, to which a rule on automated trading would apply. (This is a somewhat indirect response to question 6: “Is there guidance that the Commission can give DCMs for how best to monitor for emerging risks that are not mitigated or contemplated by existing risk controls or procedures?”)*

### **The status of definitions in the NPRM**

The paucity and lack of specificity in the definitions of NPRM terms is intentional and not a staff oversight: “The Commission intends, by not defining the terms in a static way, that the application of these Risk Principles by DCMs and the Commission will be able to evolve over time along with market developments.” (FR 42765) The consequence of this intention to not assign fixed meanings to terms used in the NPRM is that the DCMs are given discretion to decide what the terms mean. For example, regarding the term “market disruption,”

The Commission believes that DCMs should have discretion to precisely identify market disruptions and system anomalies as they relate to the DCMs’ particular markets and market participants’ trading activity. The Commission also recognizes that each DCM may have different understandings of, or parameters for, disruptive behavior in its market. This may result in a certain degree of differences in DCM rules implementing the Risk Principles. The Commission does not believe that a lack of uniformity between DCMs’ rules and risk controls renders a particular DCM’s rules or risk controls per se unreasonable. (FR 42765)

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<sup>16</sup> Fei-Fei Li, cited in “Q+A,” (“The Artificial Intelligence Issue”) *MIT Technology Review*, Vol. 120:6, November-December 2017, at 26.

The Commission grants each DCM discretion to interpret the terms of the NPRM and to determine what is or is not a “market disruption” or “system anomalies” and whether to mitigate them or not. As a result, any comment on the content or clarity of NPRM terms is nigh on to futile, since the Commission has given each DCM the discretion to interpret the risk controls mandated by the Principles according to no uniform standard. Because few regulatory definitions are suggested in the NPRM and because each DCM sets its own standard for interpretation of NPRM terms, IATP finds it very difficult to respond to the NPRM posed questions even when they are very relevant to each DCM’s implementation of the Principles.

IATP has no recommendation to make about the Commission’s decision to make the meaning of the terms in the NPRM “fluid” and subject to DCM interpretation. However, we will comment on possible consequences of the Commission’s decision not to require any uniform standards for the DCM establishment and implementation of rules and risk controls governing their electronic platforms and the electronic trading, automated or not, of DCM market participants.

### **Testing the belief in principles-based regulation and verifying its DCM enforcement**

The primary question that this letter analyzes is whether the proposed Principles enhance the Commission’s ability to enforce its existing electronic trading rules, provides no added value to the CFTC’s current surveillance and enforcement functionality, or impedes the Commission’s surveillance and enforcement capacity by delegating its authority to DCMs to regulate market participants without stipulating how the Commission will verify DCM compliance with the Principles. The Principles adopt the thesis of the Futures Industry Association (FIA): “FIA’s Advocacy efforts have centered on the belief that in order for risk controls to be effective, they should be principles based rather than a prescriptive set of requirements which can become obsolete as markets and their participants evolve.”<sup>17</sup> According to this belief, prescriptive regulation of markets and their participants is always already obsolete because market trading technologies will evolve at a pace and in ways that normative regulations cannot anticipate, circumscribe and codify.

Asserting this belief is not, however, testing for its validity. Consider one of four principles that FIA advocates: “Exchanges should be able to identify the originator of an electronic order and whether the order was generated automatically or manually.”<sup>18</sup> This is a prudent principle, very unlikely to change as market participant and DCM technology evolves. Absent the DCM required tagging of the order entry, if the order triggers a trading disruption in a contract, kill switch functionality cannot be targeted to the order. Without knowing the originator of disruptive order messaging, the DCM cannot detect and mitigate the price discovery disruption in a contract without halting all trading. If the “should” in the FIA principle were a “must,” it would be, at least semantically, a prescriptive requirement. That “should” to “must” conversion is achieved in Risk Principle 2.

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<sup>17</sup> “FIA Best Practices for Exchange Risk Controls,” Technology Advisory Committee Subcommittee on Automated and Modern Trading, October 3, 2019, slide 4.

[https://www.cftc.gov/About/CFTCCommittees/TechnologyAdvisory/tac\\_meetings.html](https://www.cftc.gov/About/CFTCCommittees/TechnologyAdvisory/tac_meetings.html)

<sup>18</sup> Ibid.

Proposed Regulation 38.251(f)—Risk Principle 2 Proposed regulation 38.251(f)—Risk Principle 2—provides that a DCM must subject all electronic orders to exchange-based pre-trade risk controls to prevent, detect, and mitigate market disruptions or system anomalies associated with electronic trading. (FR 42771)

The semantic conversion from “should” to “must” is not, in Principle 2 or the preamble, provided with a description of how the Commission will verify the DCM’s enforcement of the Principle. The NPRM preamble promises, “The Commission will monitor DCMs to ensure compliance with the Risk Principles.” (FR 42763) However, the NPRM says nothing about how the monitoring will be structured nor what the consequences will be for DCM non-compliance. Should the NPRM require such a Commission verification mechanism or will it too be made obsolete by ever more complex algorithmic design, machine learning and ever faster nanotechnology enabled computers trading near the speed of light? For example, how does the Commission verify that the DCM pre-trade risk controls work as described by the DCM?

In the same October 2019 meeting of the Technology Advisory Committee at which FIA advocated its principles for electronic trading, the CFTC staff presented a version of its March 2019 report, “Impact of Automated Trading in Futures Markets.”<sup>19</sup> According to the staff study, only the Chicago Mercantile Exchange (CME) required market participants to tag their order entry messages, so the staff could only study the end of the day price volatility of just CME trading. (p.5) The Commission estimates that there will be “15 respondents,” i.e., DCMs, to whom the Principles will apply. (FR 427770) So as of March 2019, just one of 15 DCMs covered by the Principles had implemented the FIA-advocated best practice of identifying the originator of an order. IATP has no idea whether since March 2019 the other 14 DCMs have adopted a means for tagging order entry messages, tested that tagging technology and reported to the Commission the tagging technology adopted. However, each DCM’s periodic reporting to the Commission its technology for tagging of order entry messages would form part of the Commission’s verification mechanism, regarding pre-trade risk controls, for an enforceable electronic trading rule.

The preamble to the NPRM misrepresents the March 2019 staff study, and inadvertently points to the need for a staff study that should inform an eventual rulemaking:

MIB [Market Intelligence Branch] also reported that there was no correlation between the increase in automated trading activity in these markets and any increase in volatility. Regardless, the issues addressed by the Risk Principles go beyond the discernable price movements of markets and into the underlying functionality. (FR 42762, footnote 2)

This reference to the staff report suggests the staff had analyzed all forms of price volatility in all the DCMs in which automated trading had increased. (As noted above, the staff was only able to analyze CME order entry data, because only CME tagged its order entries.) The report first identifies the kind of price volatility it is analyzing: “Although the level of automation increased steadily each year, historical volatility of end-of-day prices did not exhibit the same trend. [footnote 1]<sup>20</sup>” (p. 5) The term sheet to

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<sup>19</sup> <https://www.cftc.gov/MarketReports/StaffReports/index.htm>

<sup>20</sup> Footnote 1 states: “End-of-day volatility is defined, in this report, as the statistical volatility calculated as a standard deviation of the natural logarithm of the end-of-day settlement price returns over a period of one year.”

instruct staff to focus on end-of-the-day prices resulted in no study of the intraday extreme price volatility characteristic of market disruptive events.

Indeed, the staff report noted, “Intra-day volatility, using pricing data within each trading date, from open to close, was not analyzed in this study.” (p. 11) The MIB further emphasized what it had not studied: “The aforementioned price analysis shows that historical end-of-day price volatility has not been equally increasing year over-year. However, this does not imply that automated trading has not affected short term market events or intra-day price volatility which was not part of this study.” (p. 13) “Short term market events” have and can trigger the market disruptions that these Principles intend to prevent, detect and mitigate.

There is, of course, a quick and simple editorial fix to the mischaracterization of the staff study and the Commission’s avoidance thus far of studying extreme intraday price volatility that characterizes market disruptions and systemic anomalies. Just delete footnote 2: problem “solved.” However, the fixes needed to make the Principles enforceable by the Commission are not so quick nor simple.

*Recommendation 2: Before this rulemaking proceeds any further, the Commission should issue a term sheet for the MIB staff to produce a report on the impact of electronic trading on intra-day price volatility over the same time period covered by March 2019 study of historical end-of-day price volatility. A MIB study of intra-day price volatility would help the Commission determine whether the DCMs’ risk controls’ “underlying functionality” was adequate to prevent, detect and mitigate intra-day market disruptions. The term sheet should instruct staff to analyze the impact of DCM rules issued since the March 2019 MIB study on market participant order entry tagging to enable DCMs to prevent, detect and mitigate market disruptions resulting from extreme intra-day price volatility. The MIB study would inform revisions to the preamble, the Principles and future rulemaking on automated trading.*

## Enforceable Principles

Principles-based rules that the Commission cannot effectively supervise and, as necessary, enforce would be a surrender — not a delegation — of the Commission’s authority to industry and particularly to DCMs. Worse, an unenforceable rule could legalize trading activities among those characterized by the Commission’s former head of enforcement as “a massive amount of misconduct” in the trading of futures, options and swaps that could not be prosecuted, in part, due to lack of resources.<sup>21</sup> As the only U.S. financial regulator dependent on Congress for its budget, it has been long recognized that the Commission remains greatly under-resourced, relative to the scale and complexity of the markets, market participants and contracts it regulates. The advocacy to keep the Commission resource poor not only impedes the agency’s ability to enforce its rules: CFTC data collection and surveillance for non-enforcement purposes is also diminished.<sup>22</sup>

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<sup>21</sup> Karen Freifeld, “Misconduct rife in derivatives—ex-CFTC enforcement chief,” *Reuters*, March 24, 2017.

<http://www.reuters.com/article/us-cftc-enforcement-goelman-idUSKBN16V1D0>

<sup>22</sup> E.g. Matthew Leiser, “Hunting for Dirty Deeds in the \$34 Trillion U.S. Futures Market,” *Bloomberg Businessweek*, February 16, 2017.

The preamble to the Principles assures the DCMs that whether their risk controls are effective in preventing, detecting and mitigating market disruptions or not, it is very unlikely that the Commission will take any enforcement action against the DCMs.

The Commission emphasizes that the Risk Principles would not create any form of strict liability for the exchanges in the event that such disruptions or anomalies occur notwithstanding such rules or controls. Nor would the Risk Principles require any specifically defined set of rules or risk controls. As provided in the proposed Acceptable Practices for implementing the Risk Principles, DCMs shall have satisfied their requirements under the Risk Principles if they have established and implemented rules and pre-trade risk controls that are reasonably designed to prevent, detect, and mitigate market disruptions or system anomalies associated with electronic trading. (FR 42763)

Although preambular language is guidance to the regulated entity and not binding law,<sup>23</sup> the Commission still must not assure DCMs that the failure of their risk controls to prevent market disruptions and system anomalies will not result in enforcement actions based on strict liability for the DCMs. Even if the Commission believes that the Commodity Exchange Act provides a statutory basis for such an assurance, it must not be made in this NPRM or any other. To provide this assurance would signal to the DCMs that the Commission believes any plaintiff against a DCM in a market disruption case would have to both meet the very high evidentiary standard of strict liability and show that the DCM risk controls were not “reasonably designed.” DCMs have incentives to reasonably design their risk controls and ensure the market participants transacting on their electronic platforms likewise have reasonably designed risk controls.

However, DCMs compete for market participant trades, so competitive pressures could reduce DCM verification of market participant compliance with DCM requirements for market participant risk controls. There is a very high market share concentration of futures and options trading in the CME Group<sup>24</sup> so any negligence in oversight in the reasonable design of risk controls would probably result from complacency, rather than competitive pressures. However, the competition among DCMs for Over the Counter Trading and for trading in new products, such as digital coins, could result in lax risk control design or lax updating of controls under competitive pressures.<sup>25</sup>

The consequences of DCM risk control failure are categorically greater for those transactions that are not accepted for clearing. (Footnote 39 helpfully reminds us that “The Commission notes that the term ‘electronic trading’ includes both cleared and uncleared trades.”) Uncleared trades should post higher initial margin and maintain higher variation margin than cleared trades. Both DCM and market participant risk controls must be calibrated to incorporate differences in these margin requirements between cleared and uncleared trades. However, federal financial regulators are under constant industry pressure to eliminate such fundamental protections as initial margin, e.g., for cross-border

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<sup>23</sup> Kevin M. Stack, “Preambles as Guidance,” *Georgetown University Law Review*, Vol. 10:5 (September 2016), 1252-1290. <http://www.gwlr.org/wp-content/uploads/2016/09/84-Geo.-Wash.-L.-Rev.-1252.pdf>

<sup>24</sup> Alexander Okuliar, “Financial Exchange Consolidation: Is There a Need for More Intervention? Antitrust,” American Bar Association, Vol. 28:2 (Spring 2014). <https://awa2015.concurrences.com/IMG/pdf/sprng14-okuliar.pdf>

<sup>25</sup> Paddy Baker, “CME Takes Its Bitcoin Options Live, Competing with ICE’s Bakkt,” Coin Desk, January 13, 2020. <https://www.coindesk.com/cme-takes-its-bitcoin-options-live-competing-with-ices-bakkt>

inter-affiliate swaps.<sup>26</sup> Even if regulators cede to these pressures, the preamble should be revised to mandate that DCMs maintain separate risk controls for cleared and uncleared trades. Since uncleared trades pose greater counterparty credit risks, the Commission should amend the Principles to require post-trade risk controls to prevent post-trade contract defaults and other credit events.

Regardless of how the DCMs define their rules and risk controls for the market participants transacting on their platforms, the Commission proposes not to hold the DMCs strictly liable for market disruptions, no matter how those disruptions impact market participants. The only provision that prevents the Commission from putting the DCMs above the law in the preamble, regarding their rules and risk controls, is if those rules and risk controls do not follow the “Acceptable Practices” that are industry defined best practices.

*Recommendation 3: IATP believes that the preamble must not advise that DCMs will not be subject to strict liability for the failure of their rules and risk controls to prevent, detect and/or mitigate market disruptions or system anomalies. If the Commission insists in retaining this legal opinion within the preamble, it must provide a statutory analysis of the CEA that would justify the opinion. The preamble and Risk Principle 2 should be revised to require DCMs to establish and implement post-trade risk controls to help protect market participants against credit events resulting from DCM negligence in the design, implementation and enforcement of its rules and risk controls. Requiring post-trade risk controls in the Principles would follow the FIA recommendation on post-trade risk controls.<sup>27</sup>*

### **Determining compliance with the Principles when there is no uniform standard for DCM rules and risk controls**

Commission verification of compliance with Principle 3 would be after the fact of disruption in one or more of the DCM’s electronic trading platforms.

- c. Proposed Regulation 38.251(g)—Risk Principle 3 Proposed regulation 38.251(g)—Risk Principle 3—provides that a DCM must promptly notify Commission staff of a significant disruption to its electronic trading platform(s) and provide timely information on the causes and remediation.

This Principle assigns to the DCM the determination of what constitutes a “significant disruption” and therefore, whether and what to report about the causes of that disruption and whether and how to prevent further “significant disruption” in trading of DCM contracts. Commission staff would receive such information as the DCM determined was relevant to explain how the disruption occurred and how it was detected and mitigated. The NPRM does not make clear what, if anything, the staff would do with the information selected by the DCM to share with the staff. Would the staff review the information received and make a recommendation to the Commission about whether the DCM’s risk controls were “objectively reasonable?” (FR 42767) That is the sole criterion in the NPRM by which the Commission could judge if the DCM’s risk controls were adequate to detect and mitigate the extent and interconnectedness of disruption to its electronic trading platforms.

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<sup>26</sup> Dennis Kelleher and Joseph Cisewski, “Don’t mess with rules curbing derivatives risk,” *American Banker*, October 17, 2019. <https://www.americanbanker.com/opinion/dont-mess-with-rules-curbing-derivatives-risk>

<sup>27</sup> “FIA Best Practices for Exchange Risk Controls,” slide 6.

The Principles are so flexible that they do not provide a uniform standard according to which the DCMs are to develop and implement their rules and risk controls. “The Commission does not believe that a lack of uniformity between DCMs’ rules and risk controls renders a particular DCM’s rules or risk controls per se unreasonable.” (FR 42765) If one DCM pursues competitive advantage by developing risk controls and rules that market participants perceive to be less costly to implement and/or to give them a competitive advantage in trading, the Commission believes the DCM seeking such a competitive advantage to comply with the Principles, provided that the DCM rules and risk controls are not inherently unreasonable.

The Commission should document the basis for its belief that allowing each DCM to develop and enforce its own rules and risk controls presents no possibility of regulatory arbitrage among DCMs. For example, the Commission is currently investigating the extreme price volatility of the WTI light crude contract between April 20-21, 2020. Rather than presuming, as CME Group chief Executive Officer Terry Duffy claimed, that the unprecedented WTI price volatility could be explained in terms of storage fundamentals, the Commission should investigate whether differing risk controls among the CME Group’s electronic trading platforms, e.g., in Europe, might have contributed to migration of the WTI light crude price volatility into other contracts in other exchanges. As Justin Slaughter, a former CFTC official, remarked of the Trade on Settlement transactions of the WTI contract by a British speculator, “If something goes wrong in the oil market, it doesn’t stay contained just to the oil financial markets or the energy sector itself, it bleeds through to the entire global economy.”<sup>28</sup> One question for the Commission to ask is whether risk control differences between the CME GLOBEX electronic platform and other DCM platforms might have resulted in arbitrage opportunities that facilitated market disruptions beyond that of the WTI contract.

*Recommendation 4: The Commission should document and explain its belief in the preamble that the lack of any uniform standard by which DCMs should develop rules and risk controls presents no opportunities for regulatory arbitrage among the DCMs and no migration of market disruptions from one DCM to another.*

#### **Regulating market participant electronic trading systems and practices under the Dodd Frank definition of “spoofing”**

Proposed Regulation 38.251(e)—Risk Principle 1 Proposed regulation 38.251(e)—Risk Principle 1—provides that a DCM must adopt and implement rules governing market participants subject to its jurisdiction to prevent, detect, and mitigate market disruptions or system anomalies associated with electronic trading. (FR 42771)

The NPRM delegates to the DCMs authority to regulate the market participants transacting business on each DCM electronic trading platform. The NPRM provides five examples of CME Group subsidiary exchange enforcement actions taken from 2011 to 2020 when market participants violated CME Group rules and risk controls. (FR 42763) As reported in the NPRM, the violations concerned excessive and non-actionable order messaging. The pre-trade risk controls did not prevent the messaging violations,

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<sup>28</sup> Liam Vaughan and Benjamin Bain, “Oil Bonanza at UK Firm Casts Light on Price-Blind Trades,” *Bloomberg Business News*, August 7, 2020. <https://www.investopedia.com/ask/answers/100314/whats-difference-between-chicago-board-trade-cbot-and-chicago-mercantile-exchange.asp>

but the DCMs were able to detect and mitigate the impact of excessive order messaging. The enforcement actions ranged from fines to, in one instance, developing a rule “cutting off connections” to the CME Globex trading platform for repeat violators of CME messaging limits. Do such DCM enforcement actions obviate the need for the CFTC to regulate the risk controls of market participants trading electronically on DCM platforms?

When the Dodd Frank Wall Street Reform and Consumer Protection Act (“Dodd Frank”) was being debated, the dominance of trading activity by means of communication among computer algorithms without human intermediation was not widely understood by members of Congress. Therefore, Dodd Frank, Section 747, amending the Commodity Exchange Act, still retained the hallmarks of pre-algorithmic trading, above all regarding the intentionality of the trader practicing “spoofing.” According to the CFTC staff “Interpretive Guidance and Policy Statement on Disruptive Practices”<sup>29</sup>:

Specifically, CEA section 4c(a)(5) states that it shall be unlawful for any person to engage in any trading, practice, or conduct on or subject to the rules of a registered entity that:

- (A) Violates bids or offers;
- (B) Demonstrates intentional or reckless disregard for the orderly execution of transactions during the closing period; or
- (C) Is of the character of, or is commonly known to the trade as, ‘spoofing’ (bidding or offering with the intent to cancel the bid or offer before execution).

Perhaps the most important sentence in the staff interpretation of Dodd Frank “spoofing” authority is this one: “Because CEA section 4c(a)(5)(C) requires that a person intend to cancel a bid or offer before execution, the Commission believes that reckless trading, practices, or conduct will not constitute a ‘spoofing’ violation.”<sup>30</sup>

Because of the very high burden of proof to demonstrate knowing intent to “spoof,” it has been extraordinarily difficult to prosecute cases in which the market impact of reckless trading was well documented but the intent of the market participant to spoof was denied and undocumented or ambiguously documented.<sup>31</sup> Designing software to enable circumvention of risk controls and spoofing by a client has not been prosecutable: the defense claimed the algorithm was not designed to evade DCM risk controls but that the algorithm merely “malfunctioned” as it interacted with the DCM’s risk controls.<sup>32</sup> In the rare cases when “spoofing” is successfully prosecuted, the civil penalty to the market participant whose risk controls failed to detect “spoofing” were relatively small fines,<sup>33</sup> and not the “bad actor” designation that would have sent an enforcement signal to the market more dissuasive than a fine readily paid by the market participant.<sup>34</sup>

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<sup>29</sup> [https://www.cftc.gov/sites/default/files/idc/groups/public/@newsroom/documents/file/dtp\\_factsheet.pdf](https://www.cftc.gov/sites/default/files/idc/groups/public/@newsroom/documents/file/dtp_factsheet.pdf) at 1.

<sup>30</sup> Ibid., at 2.

<sup>31</sup> Peter J. Henning, “The Problem with Prosecuting ‘Spoofing’,” *The New York Times*, May 3, 2018.

<sup>32</sup> Janan Hanna, “Spoofing Mistrial Shows Limit of Dodd-Frank on Fake Trade,” *Bloomberg*, April 12, 2019.

<sup>33</sup> “CFTC Orders Two Trading Firms, Bank to Pay \$3 Million,” Commodity Futures Trading Commission, October 1, 2019. <https://www.cftc.gov/PressRoom/PressReleases/8031-19>

<sup>34</sup> Kahdim Shubber, “Tower Research Capital pays \$67 million to settle spoofing charges,” *Financial Times*, November 7, 2019.

Unless Congress amends the CEA to authorize the Commission to regulate market participants that either design algorithmic trading systems or buy third party systems and modify them to evade risk controls, spoofing will continue to disrupt markets with excessive and unactionable market order messages. Reg AT proposed that the Commission regulate the automated trading systems of market participants. Following the Commission's withdrawal of Reg AT, the Principles delegate that regulatory requirement to the DCMs. The NPRM relegates to a footnote the regulatory obligations of market participants to maintain effective risk controls for their automated trading systems.

While the Risk Principles would apply solely to DCMs, this proposal should not be interpreted as relieving market participants of any existing obligation to implement their own risk controls under any applicable Commission or exchange rules, including Commission regulation 1.11 applicable to FCMs [Futures Commission Merchants]. Rather, consistent with industry practice, Commission regulation 1.11(e)(3)(ii) (requiring automated financial risk management controls to address operational risk), and any rules DCMs impose pursuant to proposed regulation 38.251(e) (Risk Principle 1), the Commission expects that market participants would continue to implement their own controls. (FR 42767, footnote 51)

Per Commission regulation 1.11, "(ii) *Operational risk*. The Risk Management Program shall include automated financial risk management controls reasonably designed to prevent the placing of erroneous orders, including those that exceed pre-set capital, credit, or volume thresholds. The Risk Management Program shall ensure that the use of automated trading programs is subject to policies and procedures governing the use, supervision, maintenance, testing, and inspection of such programs."<sup>35</sup> Rather than relegate to a footnote the FCMs' obligation to maintain pre-trade risk controls for transactions by their automated trading systems, the Commission should distinguish in the preamble what additional pre-trade and post-trade risks controls the DCMs must maintain from what is required of FCMs prescriptively. Otherwise, the Commission's merely footnoted expectation that FCMs will maintain pre-trade risk controls could be unfounded. Why should FCMs go through the expense of complying both with Commission and DCM risk control rules, if the Commission is delegating its electronic trading authority to the DCMs with no verification mechanism specified in the NPRM for DCM compliance?

*Recommendation 5: The Commission should distinguish in the preamble what additional pre-trade and post-trade risks controls the DCMs must maintain and what the DCMs require of their market participants to distinguish them from what is already required of FCMs prescriptively.*

#### **Do the Principles accomplish what Reg AT might have achieved prior to its withdrawal?**

This question may seem futile and irrelevant, since the Commission not only withdrew Reg AT but makes no analysis or use of any of its provisions, having rejected them categorically as "prescriptive," "too costly" and "burdensome." Nevertheless, the NPRM preamble invites the question: "Regulation AT includes, among other provisions, requirements for DCMs to implement pre-trade risk controls. The Risk Principles proposed here are intended to accomplish a similar goal as that aspect of Regulation AT, albeit through a more principles-based approach. The Risk Principles in this NPRM apply only to DCMs." (FR 42763)

IATP shares the misgivings of Commissioner Dan Berkovitz that in categorically rejecting Reg AT, the Commission has deprived the Principles of features of Reg AT at least worthy of explanation in the

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<sup>35</sup> Code of Federal Regulations as of August 18, 2020. [https://www.ecfr.gov/cgi-bin/text-idx?SID=4810a455dc6850504fb5b32aba6a0873&mc=true&tpl=/ecfrbrowse/Title17/17cfr1\\_main\\_02.tpl](https://www.ecfr.gov/cgi-bin/text-idx?SID=4810a455dc6850504fb5b32aba6a0873&mc=true&tpl=/ecfrbrowse/Title17/17cfr1_main_02.tpl)

NPRM: “The notice of withdrawal reflects a belief that there is nothing of value in Reg AT. That is simply not true. Reg AT was a comprehensive approach for addressing automated trading in Commission regulated markets. Certain elements of Reg AT attracted intense opposition and may have been a bridge too far. . . I believe the comments received on Reg AT are worth evaluating going forward.” (FR 42781) Regrettably, there is hardly any consideration of those comments in the preamble. The industry contributions to the TAC meetings, CME reports of its enforcement actions and two staff studies (one misrepresented in the preamble) are the main publicly available research sources for this NPRM. Even the Commission’s current procedures to monitor the DCMs go unmentioned in the NPRM, but not unmentioned by Commissioner Berkovitz: “The Commission has multiple oversight activities at its disposal, including market surveillance activities, reviews of new rule certifications and approval requests, and rule enforcement reviews.” (FR 42781). How these activities would be applied to monitoring DCM compliance with the Principles should be specified in the NPRM preamble.

It would be counterproductive for DCMs, for market participants and for the purpose of Commission oversight of these Principles and the preamble, if the Principles were preemptively approved prior to at least a staff study on intraday price volatility and substantive revisions, to meet a self-imposed deadline. An adequate revision would meet Commissioner Berkovitz’s standard of “a thorough articulation of the technology-driven risks present in today’s markets, and a concomitant regulatory response that will meaningfully address such risks.” (FR 42782) Among these risks are those of the interface between the automated DCM risk controls and market participant algorithms that result in algorithm malfunctions that trigger market disruptions.

Market participants have rejected in comments on Reg AT proposed Commission access to algorithm source codes as an efficient way for Commission staff to reconstruct the causes of market disruptions and to propose steps to prevent future algorithm malfunctions and market disruptions. What alternatives do market participants and DCMs propose for such reconstruction, rather than merely informing the Commission after the fact about the market disruptions with such information as the DCMs choose to share? As the “idiosyncratic events” of climate change impact the underlying assets of both physical and financial commodity derivatives, the DCMs likely will find self-regulation according to industry best practices inadequate to manage the risks of today’s markets and the markets of the near future.

*Recommendation 6: The Commission should review the Reg AT proposals and comments received on those proposals to evaluate what Reg AT provisions might improve the Principles. Even if the Commission decides to reject certain of those provisions or all of them, the preamble should provide a reasoned explanation for those rejections. Mere reiterations of industry claims that Reg AT was “too costly and burdensome” and industry beliefs that high-level principles suffice to prevent, detect and mitigate market disruptions are unlikely to satisfy the administrative record requirements of the Administrative Procedures Act. Furthermore, the preamble should explain in greater detail the procedures the Commission will use to monitor DCM compliance with whatever Principles are agreed. Finally, the preamble should illustrate the Commission’s understanding of the role that market participant algorithm malfunctions and other factors, e.g., excessive speculation in physical derivatives contracts, play in triggering market disruptions. To assist the Commission’s understanding, the staff should be given access to proprietary trading data and DCM pre-trade risk controls to produce a study on algorithm malfunctions triggering market disruptions.*

## **Conclusion**

IATP thanks the Commission for the opportunity to comment on this NPRM. We hope that these comments will assist the Commission to revise both the preamble and the Principles. If the Principles are rushed to finalization and approval, and the frequency and scale of market disruptions and system anomalies increases, the Commission will have to re-propose an amended Reg AT that may be again maligned as “too costly and burdensome” by market participants and DCMs. However, paying the costs of regulated market participant and DCM risk controls, like the costs of buying and updating trading hardware and software, must be understood as necessary to achieve the benefits of electronic trading.

Respectfully submitted,

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